**Researching in the**

**21st Century**

**Planning Guide**

Project/Task Title: To Go Through a Given Science Life Cycle Using a Fictitious Character Experiencing the Process

Teachers: M. Harris and L. Sauer

School: St. Matthews

Grade Level: 8th Grade

Subjects: English and Science

Research Focus: The Life Cycle of a Molecule Using the Creative Writing Process



**2009/2010**

**Virginia Beach City Public Schools**

Workshop Goal:

Develop a project or performance task that requires students to research in order to find the information needed to complete the project or prepare for the performance task. The project or performance task should engage students in authentic, meaningful work.

Stage 1: Desired Results

To collaborate an English and Science project using both creative and informative skills.

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| --- | --- | --- |
| Students will know…  **K** | Students will understand…  **U** | Students will do…  **D** |
| The steps of a given science cycle and steps for writing fiction/non-fiction creative writing | That all living things experience life cycles during their lifetime (Science)  That every story has a structure (Language Arts) | Use research skills to write a science cycle through the perspective of a fictitious molecule |

Note: Since research will be part of this project/task, remember to include the VBCPS Student Technology Proficiencies and Essential Information Literacy Skills.

Stage 2: Assessment Evidence.

**G**oals

* With middle school students, most of the time, goals are reached by following instructions. This will be a majority of the grade.
* Reiteration of instructions verbally and physically (spoken, directions posted in classrooms and on Edline)

**R**ole

* A walking/talking/flying/swimming molecule explaining the steps of its lifecycle
* Use given resources to create project – internet research, drawing tools, bibliography, science text, etc.

**A**udience

* For the eighth grade, the audience will include all grades younger as to inform them (lesson style)

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**S**ituation

* Identify the context in which the students find themselves which will provide them with the opportunity to synthesize the information.

**P**roduct, performance, and purpose

* The students will create something concrete – printed via computer – illustrating the process and describing the process of said molecule
* They will create this as to instruct

**S**tandards and criteria for success

* Provide multiple self-created illustrations (a minimum of three) describing process (no clip art)
* One page typed following middle school guidelines

Stage 3: Learning Plan

**Resources Needed:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Print | Science Textbook | Reference Books | Engish Notes | Instructions |
| Research Databases | Refer to given list |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| Pixie | Notestar | Internet | Wiki |

**Procedures:**

|  |  |
| --- | --- |
| **Step 1: Task Definition**  1.1 Define the information problem  1.2 Identify information needed  How much time will you need for this step?  **Science – Two class periods (two days)**  **English- (same)**  **Total = Two Days**  Who is responsible for completing this step with students?  **English and Science Teacher** | How will you introduce the task to the students? How will you introduce the “hook?” Picture book? Video clip? Puppet?  Hook - Science Video Clip  How will students determine the information needed to complete the task? Will you generate the list of questions for them? Will students generate their own questions? Explain.  Science - Teacher will hand out list of acceptable science websites along with assigning cycles for each student (differentiated methods per cycle)  English – given pre-writing templates to initiate creative writing process (list, bubble, notes, etc.)  Will mini lesson(s) need to be taught on any of the following…Active Listening? Identifying keywords in the assignment? Breaking tasks into smaller parts? Developing questions?  Science – Overview and Review of each cycle (task will be taking notes)  Engish – Review definitions for storytelling (personification, setting, plot, theme, climax, conclusion, etc. ) (task will be taking notes) |
| **Step 2: Information-Seeking Strategies**  2.1 Determine all possible sources  2.2 Select the best sources  How much time will you need for this step?  **Included in the two day process**  Who is responsible for completing this step with students?  **Science and English Teacher** | **How will students determine the best possible sources? Will you generate a list for them? Will students generate their own list? Explain.**  **Science – given list of sources**  **English - given background notes of the writing process as well as “First Line Story Starters”**  Will mini lesson(s) need to be taught on any of the following…Difference in reference sources? Determining the best source? Wikipedia? Website evaluation?  Not applicable because list will be given list of acceptable sites |
| **Step 3: Location and Access**  3.1 Locate sources (intellectually and physically)  3.2 Find information within sources  How much time will you need for this step?  **One week to gather information (at home)**  Who is responsible for completing this step with students?  **Self-construction** | How will students locate the sources? How will students locate the information within the source? Explain.  They will go to sites provided and take notes on said given sites via Notestar  Will mini lesson(s) need to be taught on any of the following…Using the card catalog? Locating materials in the media center? Scanning and skimming? Identifying and using keywords to locate information? Using text aids or features? Utilizing electronic databases? Web searching techniques?  Classes are given in computer and the media center throughout the school year |
| **Step 4: Use of Information**  4.1 Engage (e.g., read, hear, view, touch)  4.2 Extract relevant information  How much time will you need for this step?  **This will be part of the one week process (in school)**  Who is responsible for completing this step with students?  **Science Teacher**  **and English Teacher** | How will students engage in the source (read, listen, view, touch, etc.)? How will students extract the relevant information from the source? Examples include research buddies, parent volunteer, individually, whole group, etc. Explain.  Read, View, and Type  Will students be given a graphic organizer and/or a system for taking notes, or will they design their own?  Yes, they will be taught and utilize Notestar  Will mini lesson(s) need to be taught on any of the following…Self-monitoring their engagement with the text? Note-taking? Wikis? Paraphrasing vs. quoting? Plagiarism and citing sources?  **Science teacher will introduce and “walk through” steps of Notestar**  **English teacher will discuss and define plagiarism and citing sources through MLA** |
| **Step 5: Synthesis**  5.1 Organize from multiple sources  5.2 Present the information  How much time will you need for this step?  One science and one English class time | How will students organize the information from all their sources into their final product? Will they need assistance from research buddies, parent volunteer, CRS, etc.? Will this be done individually, whole group, small group, etc. Explain.  The assignment research process will be done individually; however, classes will utilize peer-editing (English), and note-checking (Science)  Who is responsible for completing this step with students?  Depending on computer accessibility (either English and science)  Will mini lesson(s) need to be taught on any of the following…Organizing information in a logical format based upon the amount and type of information? Using software and digital tools? Public speaking? Creating a simple bibliography?  Prior to project assigned, teachers will coordinate a time to take both eighth grade classes to computer lab to introduce “Pixie” (this is due to limited time for computer access throughout the year) |
| **Step 6: Evaluation**  6.1 Judge the product (effectiveness)  6.2 Judge the process (efficiency)  How much time will you need for this step?  Who is responsible for completing this step with students? | How will students evaluate the product and the process (i.e., written reflections, checklist, rubrics, peer evaluations)?  **Separate rubrics for English and science (uploaded to wikispaces)**  **Peer-evaluation will have rubric (uploaded to wikispaces)**  Will mini lesson(s) need to be taught on any of the following…Self-evaluation (see figure 12.2 on pg. 140)? Peer evaluation?  **No lesson needed for self-evaluation or peer evaluation** |

**Other Planning Considerations:**

Differentiation: Chose the science life cycles according to student individual needs

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| --- | --- | --- | --- | --- | --- |
|  | **Monday** | **Tuesday** | **Wednesday** | **Thursday** | **Friday** |
| **Week 1** | Mini-Lesson:  **English/**  **Science-** Pixie  (Computer Lab Time) | Mini-Lesson: **English** – The Writing Steps; Key Fictional Writing Terms  **Science** -  Notestar |  | Mini-Lesson  **English –** Plagiarism and Citing Sources as well as “First Line Story Starters” |  |
| **Week 2** | Introduction of project in both science and English classes – go over directions/do pre-writing skills |  |  |  |  |
| **Week 3** |  | **Science** – notes due  **English –** Begin drafting  Rough Draft due Friday |  |  | **English -**Rough Draft #1 Due/Peer Editing |
| **Week 4** | **Science** – Pixie Rough Draft Due |  |  |  | **English/Science**- Project Due |

**Planning Checklist:**

The following documents should be completed before the project is implemented. Please post as many of these documents as possible to your school’s folder on the GRT-LMS-CT 2009 Workshop SharePoint site: <http://studentportal.vbschools.com/sites/ETT/2009workshop/default.aspx>

🞏 planning guide

🞏 rubric for teacher to use to assess project/task

🞏 a timeline for the completion of the project/performance task

🞏 checklist for students who need scaffolding (if needed)

🞏 graphic organizer for students to use for the collection of information (if needed)

🞏 a list of resources (books, websites, outside resources, etc.) for students to use (if

needed)

🞏 sample student product (if time allows)